

United States Department of Agriculture,

DIVISION OF AGROSTOLOGY.

[Grass and Forage Plant Investigations.]

F. LAMSON-SCRIBNER, Agrostologist.

RESCUE GRASS.

Bromus unioloides (Willd.) HBK.

DESCRIPTION.

An annual, or sometimes perennial grass, growing three to four feet high under favorable conditions and sending up several stems from the same base. The panicle is usually large and spreading, bearing much flattened spikelets about one inch long and one-quarter of an inch wide, composed of seven to ten florets overlapping each other. The flowering glumes are rather coarse in texture, strongly nerved, and usually bearing a short point or awn rarely exceeding an eighth of an inch in length. The "seed," in the commercial sense of the term, represented in fig. 1, *b*, consists of the flowering glume with the inclosed palet and grain.

There are several forms in cultivation, varying somewhat in the size of the panicle and the length of its branches, also in the length of the awn on the flowering glume. The form illustrated in the figure is the one to which the name *Bromus schraderi* has been especially applied. It differs from the typical form only in having the branches somewhat longer and more drooping.



FIG. 1.—*Bromus unioloides* (Willd.) HBK. RESCUE-GRASS: *a*, outer or empty glumes; *b*, side view of one of the florets; *c*, palea.

HISTORY.

Rescue grass was known to botanists in Europe in the latter part of the eighteenth century. In 1806 it was described and figured by Willdenow from specimens grown in the botanical garden at Berlin from seed sent from Carolina, where it had apparently been introduced. The grass is a native of South America, where it is quite widely distributed. It also appears to be native in Central America and Mexico and possibly southern Texas, but apparently became distributed in our Southern States through the agency of the European settlers. The first attempt to introduce it into cultivation to any extent, so far as we can learn from published records, was made by B. V. Iverson, of Columbia, S. C., in 1853 and 1854. He wrote some glowing accounts of it and was quite successful in introducing it in various parts of the South at the rate of \$5 per peck. He also gave it the name, "rescue grass." It was also called in his honor "Iverson's grass."

About this time it was also introduced into Australia, where it was very popular for some time under the name of California prairie grass, this name having arisen apparently from the erroneous idea that it was a native of California. It is still used quite extensively in Australia under various names, as Australian oats, Australian brome, and prairie grass, and is highly regarded by writers on Australian grasses.

It was also introduced into France with very extravagant statements, made mostly by people hoping to derive profit from its sale. It was called Schrader's brome-grass, a translation of one of its botanical names, *Bromus schraderi*. This name is also more or less prevalent in this country. It has also been called arctic grass.

CULTIVATION AND USE.

This grass is adapted to cultivation in the Gulf States and has been tried with success as far north as North Carolina. Its value is in its use for winter pasture and hay. It has been tried at several of the experiment stations in the South and spoken of very favorably. In eastern Texas it is rather common as a volunteer crop and is spoken of very highly by some of the farmers. It grows best on a rich, loamy soil, and will do well in somewhat shady locations. On light, poor soil it produces but a scanty growth, and for pasture in such soil it is inferior to rye. To secure the most satisfactory results, the land should be well plowed and harrowed, and the seed drilled or sown broadcast and harrowed in, using 30 to 40 pounds of seed per acre.

The seed is rather expensive at present. It is sold by most of the larger dealers and is quoted at from 25 to 30 cents per pound, or 10

to 25 dollars per hundred-weight. The seed weighs about 16 pounds per bushel. After having seeded a small area, the grower may find it profitable to grow his own seed rather than pay 25 or 30 cents per pound for it.

The seed should be sown in late August or early September, so as to be ready to germinate as soon as the first fall rains come. In case of a dry autumn the crop will be late, but under favorable conditions a heavy stand will be produced, furnishing excellent pasture from December to April or May; or if it is desired for hay, one or sometimes two crops may be secured.

The grass is naturally an annual, producing its seed and then dying, but if prevented from seeding by continuous cutting or pasturing, it will survive several years and produce well; but as the grass dries up during the summer, the use of the land during that period is practically lost. Results giving the most general satisfaction in growing this grass may be secured by pasturing it until spring and then letting it reseed itself. After it has matured its seed, the land may be plowed and sown, preferably to cowpeas or Japan clover, which should be harvested in time to allow the rescue grass to start again with the first autumnal rains. Excellent volunteer crops may be secured in this way for several years.

FEEDING VALUE.

Oats, rye, barley, and hairy vetch are the other principal annual plants grown with more or less success for winter forage in the region to which rescue grass is adapted; so that it must be compared with these in determining its relative value. Professor Tracy, writing of this grass in Bulletin No. 20, of the Mississippi Station, says: "Sown with equal care it will give a better winter pasture than will either oats or rye, and in the spring can be plowed in with equal advantage as a fertilizer." For hay, Professor Phares says it is equal to a good stand of oats.

Professor Brunk, of the Texas Agricultural College, in writing of it, says: "It makes more forage in February and March than any other grass tried. When cut for hay in April it produced about two tons per acre." He places it second in a list of grasses for winter pasture in Texas, placing reed canary grass, which is a perennial, first.

Professor McCarthy, in reporting on this grass in Bulletin No. 73, of the North Carolina Experiment Station, says: "It requires rich, moist, light soil. On poorer soils it is much inferior to common rye for winter grazing."

Its nutritive value is high. Comparing the chemical analyses of the grass with those of rye and oat fodder, it is found that it contains

a larger percentage of protein and fat than either. Its nutritive ratio is 1.6, showing it to be a well-balanced ration for stock.

Experience has shown that though rescue grass can not be offered as a panacea for all the troubles of the Southern farmer as was first claimed, it can be safely recommended as a valuable addition to the winter forage plants of the South, either for hay or pasture.

CORNELIUS L. SHEAR,

Assistant Agrostologist.

Approved:

JAMES WILSON,

Secretary of Agriculture.

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